

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A display device comprising:

a face substrate having anodes and phosphors formed on an inner surface thereof;

a plurality of cathode lines which extend in one direction and are arranged in parallel in another direction which crosses the one direction;

a plurality of electron sources which are arranged on the cathode lines in an electrically conductive manner;

control electrodes which face the cathode lines in a display region and have electron passing apertures for allowing electrons from the electron sources to pass through the electron passing apertures to the face substrate side;

a back substrate having the control electrodes and the cathode lines formed on an inner surface thereof and which faces the face substrate in an opposed manner with a given distance therebetween;

a support body which is interposed between the face substrate and the back substrate in a state such that the support body surrounds ~~the-a~~ display region and holds said given distance; and

a sealing material which hermetically seals end faces of the support body and the face substrate, and the back substrate respectively, wherein

a connecting portion of the cathode line with the electron source has a composition which includes a conductor and an insulator, and the composition is

determined such that the occupancy rate of the conductor is set to be equal to or more than the occupancy rate of the insulator.

2. (previously presented) A display device according to claim 1, wherein the occupancy rate of the insulator is less than 50%.

3. (previously presented) A display device according to claim 1, wherein a surface of the back substrate in the vicinity of the cathode lines exhibits an uneven shape.

4. (currently amended) A display device comprising:  
a face substrate having anodes and phosphors formed on an inner surface thereof;  
a plurality of cathode lines which extend in one direction and are arranged in parallel in another direction which crosses the one direction;  
a plurality of electron sources which are arranged on the cathode lines in an electrically conductive manner;  
control electrodes which face the cathode lines in a display region and have electron passing apertures for allowing electrons from the electron sources to pass through the electron passing apertures to the face substrate side;  
a back substrate having the control electrodes and the cathode lines formed on an inner surface thereof and which faces the face substrate in an opposed manner with a given distance therebetween;

a support body which is interposed between the face substrate and the back substrate in a state such that the support body surrounds the a display region and holds said given distance; and

a sealing material which hermetically seals end faces of the support body and the face substrate and the back substrate, respectively, wherein

a layer having a conductor in which the occupancy rate of a conductor is high is interposed in a connecting portion between the cathode line and the electron source.

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5. (previously presented) A display device according to claim 4, wherein the layer in which the occupancy rate of the conductor is high is either a silver particle layer or a gold particle layer.

6. (new) A display device according to claim 1, wherein the connecting portion of the cathode line with the electron source is interposed between the cathode line and the electron source and has a composition which differs from a composition of the cathode line in relation to the occupancy rate of the conductor with respect to the occupancy rate of the insulator.

7. (new) A display device according to claim 1, wherein the cathode lines have a composition which includes a conductor and an insulator, and the connection portion of the cathode line with the electron source has a composition which differs from the composition of the cathode line in relation to the occupancy rate of the conductor with respect to the occupancy rate of the insulator.

8. (new) A display device according to claim 1, wherein the connecting portion of the cathode line with the electron source enables electron emission to be produced from substantially the whole surface of the electron source with a uniform emission quantity for a long time.

9. (new) A display device according to claim 4, wherein the layer is a member which separates from the cathode line and the electron source.

10. (new) A display device according to claim 4, wherein the layer which is interposed in the connecting portion between the cathode line and the electron source is a member which is separate from the cathode line and the electron source, and has a composition which differs from a composition of the cathode line at least in relation to the occupancy rate of a conductor of the cathode line.

11. (new) A display device according to claim 4, wherein the cathode line is formed of a composition in which a conductor has a predetermined occupancy rate, and the layer which is interposed in the connecting portion between the cathode line and the electron source has a different occupancy rate of the conductor with respect to the predetermined occupancy rate of the conductor for the cathode line.

12. (new) A display device according to claim 11, wherein the occupancy rate of the conductor of the layer interposed in the connecting portion between the cathode line and the electron source is higher than the predetermined occupancy rate of the conductor of the cathode line.

13. (new) A display device according to claim 14, wherein the layer which is interposed in the connecting portion between the cathode line and the electron source enables electron emission to be produced from substantially the whole surface of the electron source with and a uniform emission quantity to be obtained for a long time.

14. (new) A display device according to claim 4, wherein the layer which is interposed in the connecting portion between the cathode line and the electron source enables electron emission to be produced from substantially the whole surface of the electron source with and a uniform emission quantity to be obtained for a long time.

15. (new) A display device comprising:  
a face substrate having anodes and phosphors formed on an inner surface thereof;

a plurality of cathode lines which extend in one direction and are arranged in parallel in another direction which crosses the one direction, the cathode lines including a conductor and an insulator with the conductor having a first occupancy rate with respect to an occupancy rate of the insulator;

a plurality of electron sources which are electrically connected with the cathode lines;

a back substrate having the electron sources and the cathode lines formed on an inner-surface thereof and which faces the face substrate in an opposed manner with a given distance therebetween;

a support body which is interposed between the face substrate and the back substrate in a state such that the support body surrounds a display region and holds said given distance;

a sealing material which hermetically seals end faces of the support body and the face substrate, and the back substrate respectively; and

a connection portion interposed between the cathode line and the electron source for enabling electrical connection therebetween,

wherein the connecting portion has a conductor with a second occupancy rate which is different from the first occupancy rate of the conductor of the cathode line.

16. (new) A display device according to claim 15, wherein the second occupancy rate of the conductor of the connection portion is higher than the first occupancy rate of the conductor of the cathode line.

17. (new) A display device according to claim 15, wherein the connection portion is a separate layer disposed between the cathode line and the electron source.

18. (new) A display device according to claim 15, wherein the connection portion is formed as a part of the cathode line at an upper surface of the cathode line and has a different composition from a composition of the cathode line at least with respect to the occupancy rate of the conductor.